Affinity Water

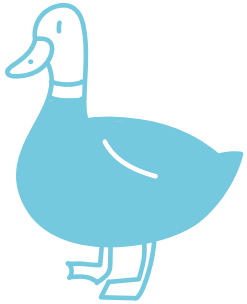
A summary of our Drought Plan 2023

affinitywater.co.uk

Affinity Water

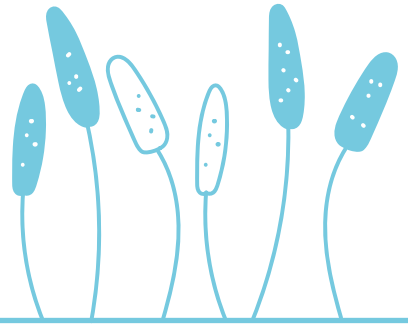
Security Notice

This document has been written in compliance with our security policy so that no redaction is required for publication. Codes have been used to preserve the security of our production locations.



Affinity Water

Contents



Affinity Water

1 Welcome to our Drought Plan summary

Welcome to our Drought Plan 2023 summary, which provides an overview of the key elements of our Plan. It explains how we identify and monitor drought events, as well as how we respond to these to minimise any risks to the environment and to supply.

1.1 Who we are and why we need a drought plan

We are a water company supplying parts of South East England, which is one of the most water scarce regions in the country. Our company purpose is to provide high quality drinking water and to take care of our environment for our communities now and in the future. This means that we are placing the environment at the heart of what we are here to do, and our plan reflects that. Our Drought Plan focuses on what we need to do to maintain customers' water supplies whilst protecting the environment.

It is critical that as a company we are prepared for challenges such as droughts. Climate change and population growth are expected to exacerbate these problems in the future and long term solutions to this are addressed within our Water Resource Management Plan (WRMP). This is closely linked to our drought plan, which is a short term operational plan that covers the period 2023 to 2028. Our aim is to ensure we are better prepared for droughts than ever before.

Our drought plan outlines the way we would respond in a drought situation and the actions we would take as it progresses. This plan, if put into action, has the potential to impact the way our customers use water. Our drought plan is based on our previous experiences of drought events and lessons we have learned from managing them.
We hope you find this document helpful, and if you have any questions or comments, please share them with us.

Affinity Water

Welcome to our Drought Plan summary

1.2 Protecting the environment

Protecting the environment is a fundamental part of our business, and we take our responsibilities very seriously. Our supply area includes around 9% of England's chalk streams within it, which are recognised as rare ecological habitats.

As part of our business-as-usual activity our substantial **Environmental Enhancement Programme**[1] works in our supply area to deliver projects that protect and enhance the environment. We have been working to improve chalk streams in our area for over 20 years. Since 2015 we have carried out restoration of over 120km of chalk streams. The programme continues to provide supporting flows from our boreholes to help river flows and works with farmers and other catchment stakeholders to improve land-use and water quality.

Our programme focuses on river restoration, abstraction reduction, biodiversity work and catchment management projects to improve chalk stream ecosystem health.

We are committed to working with partnership organisations to protect these precious ecosystems, improve river habitats for wildlife and enhance biodiversity at our sites and throughout our regions.

With our environmental responsibilities in mind, we have included a new phase of action (known as a drought trigger) in this plan to ensure we identify environmental stress early on in a drought as an indicator for when chalk streams in our area are likely to be suffering from lack of rainfall, as this usually happens before risks to water supply occur. This new trigger will help us to proactively communicate to customers and stakeholders the environmental risks from drought, what we are doing about it, and what they can do to help.

Some of our drought actions have the potential to impact the environment such as drought permits and drought orders. We must apply to the Environment Agency for drought permits and the Secretary of State for drought orders which, if granted, could allow us to take more water from underground aquifers to ensure we can maintain supply to our customers in the event of a severe drought.

Before we do that, we carry out environmental assessments on these water sources and their catchments to see what potential impact our actions may have on the environment, and how we can mitigate these effects.

Our assessments include:

- Increasing monitoring of flows in rivers near our drought permit sources
- Carrying out physical walkover surveys
- Measuring water flows with gauges
- Regularly testing the quality of surface water
- Undertaking surveys for macroinvertebrates – these small organisms are useful indicators of the health or condition of water bodies

[1] https://www.affinitywater.co.uk/corporate/environment

Affinity Water

Welcome to our Drought Plan summary

1.3 Levels of service

The average likelihood of introducing water use restrictions on customers
Our Drought Management Plan makes an assessment of the expected frequency of the actions we need to take to maintain customers' water supplies during a drought. We have previously consulted with customers on this and the frequency of restrictions is based on their feedback.

Water supply levels of service are a measure of the likelihood of applying restrictions on customers during drought conditions; they set out how often on average we expect that we will need to take a specified step in response to a drought.

Drought Management Action	Frequency
Temporary Use Ban restrictions	1 in 10 years
Demand-side ordinary drought orders restricting non-essential use	1 in 40 years
Category 1 supply-side drought permits/drought orders	1 in 40 years – 1 in 100 years*
Category 2 supply-side drought permits/ drought orders	> 1 in 100 years*
Emergency drought orders	Deemed unacceptable but could be used for short periods of time in localised areas as a result of a civil emergency

Any changes to these levels of service would require investment in the network in order to increase resilience and flexibility. Investment for any changes is sought through the Water Resource Management Plan and Business Plan process.

Our research and consultation has told us that these service levels are acceptable to the majority of our customers, and we will continue to engage with customers and stakeholders to ensure that this remains so.

* We are aiming for this frequency to change to 1 in >200 years post March 2024, in line with the Water Resource Management Plan 2019, this will be reflected in the annual update of the drought plan.

Affinity Water

Welcome to our Drought Plan summary

1.4 Tell us your views

We published our draft drought plan for public consultation in accordance with the Guidance. We invited views from both individuals and organisations on the key elements of our draft plan. The period of consultation was eight weeks, from 4th June to 30th July 2021. The draft drought plan was published on our website **www.affinitywater.co.uk** and printed copies were also available on request. All regulators, stakeholders and statutory consultees were notified of our consultation.

We received a number of formal representations from regulators, local organisations and individual customers. We took these into account when updating our draft drought plan.

Further information about the representations and our responses to these can be found in our Statement of Response, which was published on our website on 17th September 2021. Our Statement of Response sets out the changes we have made as a result of the representations received.

The timeline below explains the process we undergo before we publish the final version of our new drought plan.

Write new drought plan, taking on board guidance and learning from drought experiences

Public consultation period - Spring 2021

Review consultation feedback and update plan

Publish statement of response

Send updated drought plan to Defra for approval

Publish final drought plan following Defra approval - 2023

2 What is a drought?

Droughts are natural events that happen when there are extended periods of low rainfall that create a shortage of water for people, the environment, agriculture or industry. There is no single definition of a drought, although they are all characterised by some degree of rainfall shortage.

2.1 The nature of droughts

Every drought is different – in terms of the area they affect, how long and severe they are, and the impact they have on different water users and the environment. It is impossible to know when a drought will end, so we need to plan for different scenarios when we are going through a drought event, and this means building flexibility into our plan.

With such uncertainty, it is important that we make plans to effectively manage drought, whatever the weather.

There are three main types of drought:

Environmental drought

This is when a shortage of rainfall impacts the environment, and it can result in low levels in waterbodies such as rivers, lakes, and wetlands.

This can result in local wildlife being impacted, particularly for water dependent species such as fish, water-dependent insects and aquatic plants.

Droughts can have a more damaging effect in environmental systems which have been heavily modified or affected by human activities.

Examples of this include river channels that have been straightened over time to meet industrial or landowners needs for the water. Natural healthy ecosystems are more resilient to natural stress events such as droughts.

Agricultural drought

This occurs when lack of rainfall causes problems for farmers, either through lack of water for irrigation or through lack of moisture in soils causing poor growing conditions.

This can impact crop production and other farming practices. Agricultural and environmental drought conditions often happen at the same time, and these impacts are typically felt before a public water supply drought.

Water supply drought

If we have a dry winter, where we receive significantly lower than average rainfall, our groundwater aquifer sources are not replenished. Lower groundwater levels will lead to lower flows in some local rivers. Because of our reliance on groundwater, in these instances we may take action to preserve water supplies such as asking customers to voluntarily reduce water usage, and, if necessary, introduce some temporary usage restrictions.

If we have two back-to-back dry winters many of our water sources are likely to be impacted. Our groundwater levels will be significantly reduced and because of this, there will be lower flows in most local rivers. It is possible that in this instance, water use restrictions for households and businesses will be needed.

Affinity Water

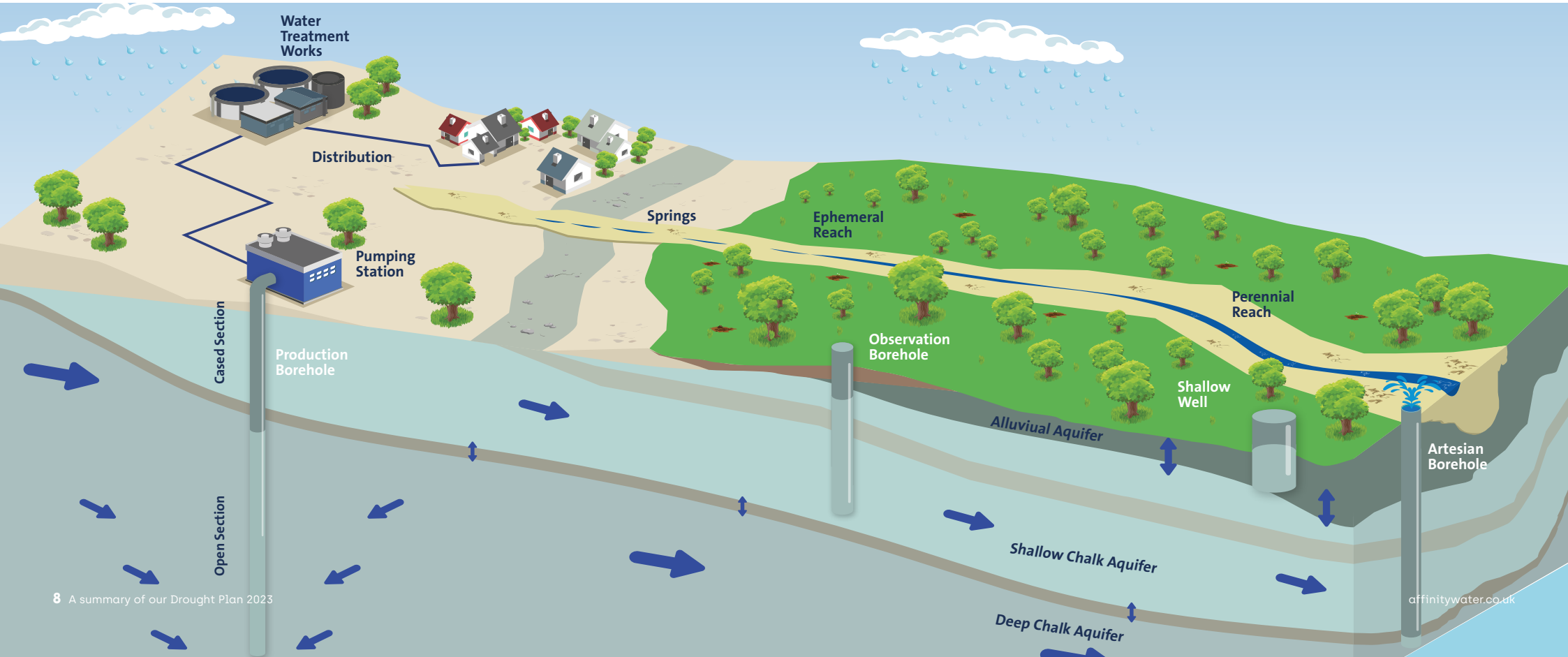
What is a drought?

2.2 How droughts affect our water supplies

The majority of the water we supply comes from aquifers below the ground – see the accompanying graphic which illustrates a groundwater system.

Aquifers are a body of porous rock or sediment that can store water, known as groundwater. In our supply area, the main aquifer is made of chalk and helps feed our local rivers and globally rare chalk streams. When groundwater levels are high, the rivers flow as normal, when they are low, some rivers will begin to dry out, particularly in the upper reaches. This is a natural process and these parts of the river are known as winterbourne or ephemeral reaches, as they do not flow all the time.

Groundwater levels are most strongly influenced by weather (particularly winter rainfall) and naturally vary with the seasons. However, our operations can also affect groundwater levels in some areas, which is why we pay close attention to the impact this has on the environment. We have an extensive environmental monitoring network and are investing significant amounts into improving habitats in local river systems, including through our Revitalising Chalk rivers programme. This will help to improve the resilience of these habitats to drought events.



What is a drought?

Droughts vary from region to region. Neighbouring water companies will take the actions that are necessary in their region to protect supplies and this can mean that our actions may differ according to the particular circumstances. When deciding what action to take, water companies must consider:

- Different levels of drought severity across the region: Whilst droughts across the South East will generally be caused by a regional trend of several months of below average rainfall, sub-regional differences in rainfall may cause different levels of drought severity across the region. The need to impose restrictions for one company may not equally apply to another company in the South East.

- Different vulnerabilities for different water supply systems: Due to the way the water supply system has developed over the years, water supply systems are typically supplied from the following sources:

    - Groundwater abstraction
    - Surface water – river abstraction
    - Surface water – reservoirs filled from local river water or by impounding river water
    - Combinations of the above

Each of these sources generates a different risk at different times during a drought, which can mean that restrictions are implemented in some areas but not in others. In the event of a drought we will work with our neighbouring companies to align water restrictions where possible, to minimise any confusion for our customers.

What is a drought?

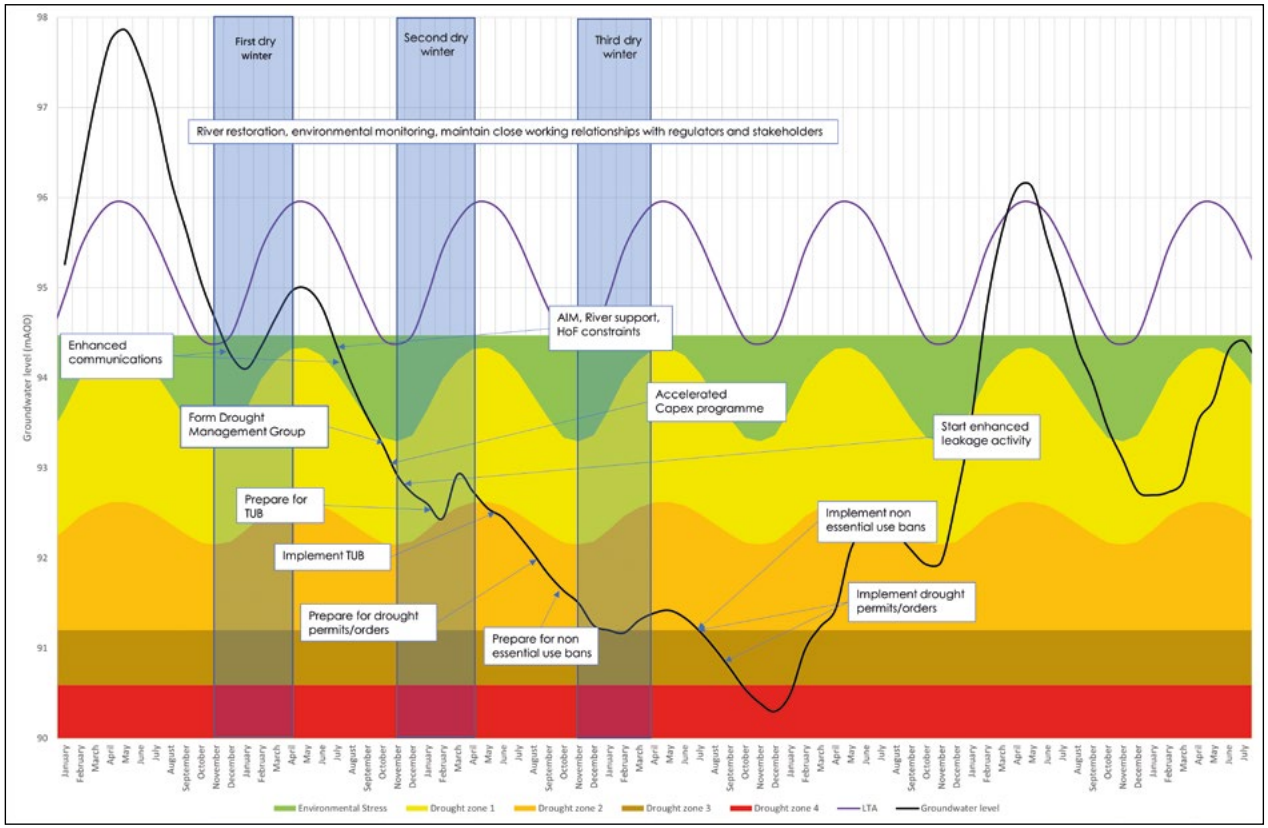
2.3 How we monitor droughts

Supplying water to our customers is a 24/7 business. We continuously monitor rainfall, how our water sources are doing, and how much water is being used. For the purposes of drought planning, it is particularly important that we understand groundwater levels, as most of our supplies come from groundwater sources, and these can be affected by drought. Our main drought plan and appendices provide more information on how we monitor our water resources.

We use `drought triggers' which are linked to specific groundwater levels, to determine the actions we need to take – before a drought happens, as a drought develops, during a drought and after levels have recovered. These triggers also give us enough time to plan and deliver the actions, as well as make sure we communicate what we are doing.

The chart opposite shows our drought triggers, as well as some of the key actions we would take as we reach different triggers during a drought. The coloured bands show each of our different drought triggers.

The black line represents groundwater levels and how they could change during a drought. Please refer to our main drought plan for detailed information about the drought actions shown in this figure.



Affinity Water

3 Drought management actions

This section explains the actions we would take to minimise impacts on the environment, reduce demand and maintain supply to customers during a drought, which are summarised in the tables below.

	BAU	Environmental Stress	Drought Trigger 1	Drought Trigger 2	Drought Trigger 3	Drought Trigger 4
What we would see on the ground	Rivers flowing as normal	Downstream migration of headwaters. Some rivers experiencing low flows	Most rivers experiencing low flows and visibly low flows/drying in the headwaters, especially along modified reaches	Most rivers experiencing low flows and potentially drying in upper and middle reaches	Almost all rivers experiencing very low flows and significant lengths of dry reaches	Significant lengths of dry reaches in all rivers

	BAU	Environmental Stress	Drought Trigger 1	Drought Trigger 2	Drought Trigger 3	Drought Trigger 4
What we will do to protect the environment	River restoration	River restoration	River restoration	River restoration	River restoration	River restoration
	Continue with planned sustainability reductions	Continue with planned sustainability reductions	Continue with planned sustainability reductions	Continue with planned sustainability reductions	Continue with planned sustainability reductions	-
	Environmental monitoring	Environmental monitoring	Environmental monitoring	Enhanced environmental monitoring	Enhanced environmental monitoring	Enhanced environmental monitoring
	-	Reduce abstraction in sensitive catchments	Reduce abstraction in sensitive catchments	Reduce abstraction in sensitive catchments	-	-
	-	Hands off flow constraints on licences	Hands off flow constraints on licences as required	Hands off flow constraints on licences as required	Hands off flow constraints on licences as required	Hands off flow constraints on licences as required
	-	River support	River support	River support	River support	River support

Affinity Water

Drought management actions

	BAU	Environmental Stress	Drought Trigger 1	Drought Trigger 2	Drought Trigger 3	Drought Trigger 4
What we will do to raise awareness and reduce demand	Water efficiency Messaging, education programme etc	Environment Focused campaign	Agile Communications – save x a day	Communications around drought and temporary restrictions	Communications around drought and temporary restrictions	Intensive communications about drought
	Regular stakeholder updates including retailers	Regular stakeholder updates including retailers	Regular stakeholder updates including retailers	Regular stakeholder updates including retailers	Regular stakeholder updates including retailers	Regular stakeholder updates including retailers
	Information published on our website	Information published on our website	Information published on our website	Information published on our website	Information published on our website	Information published on our website
	-	-	Prepare for Temporary Use Bans	Temporary Use Bans	Non-essential use bans	Emergency drought orders
	-	-	-	Prepare for non-essential use bans	-	-
	-	-	Enhanced leakage control	Enhanced leakage control	Enhanced leakage control	Enhanced leakage control

	BAU	Environmental Stress	Drought Trigger 1	Drought Trigger 2	Drought Trigger 3	Drought Trigger 4
What we will do to keep the water flowing	-	-	-	Prepare for drought permits and orders	Apply for and implement drought permits and drought orders	Apply for drought permit and order extensions
	-	-	Outage management	Minimise routine outage	Minimise routine outage	Minimise planned outage
	-	Groundwater resting in preparation for peak demand	Groundwater resting in preparation for peak demand	Groundwater resting in preparation for peak demand	Groundwater resting in preparation for peak demand	Groundwater resting
	-	-	Network and source optimisation	Network and source optimisation	Pressure control schemes	Pressure control schemes
	-	-	Accelerated Capital investment programme	Accelerated Capital investment programme	Accelerated Capital investment programme	Accelerated Capital investment programme
	-	-	Assessment of potential transfers	Assessment of potential transfers	Transfers maximised	Transfers maximised

Drought management actions

3.1 Environmental stress trigger

3.1.1 What it looks like

Groundwater levels would reach the Environmental Stress trigger before water supplies become affected by lack of rainfall. This trigger would be characterised by river catchments starting to be affected by lack of rainfall and low groundwater conditions.

We would expect to see the headwaters of some rivers start to move downstream as upper reaches begin to dry up. Low flows in some reaches could start to affect ecological communities such as fish and macroinvertebrates, and aquatic plants could also be impacted.

3.1.2 Actions to reduce demand

It is important that we reduce demand for water in the early stages of a drought, when this has the potential to result in benefits for the environment. We would therefore ask our customers to use less water, and provide information about how they can do this. We will also explain what we are doing to manage the developing drought situation.

We will work with our partners and stakeholders to help share the messaging around the dry weather situation, and the need to leave more water in the environment by reducing demand.

When we are in a period of Environmental Stress when water supplies are not at risk, but the environment may be seeing some stress from prolonged dry weather, we would aim to refocus our leakage programme to target areas of our region that are most affected.

3.1.3 Actions to protect the environment

In certain areas we support rivers by adding water taken from our sources during times of environmental stress. This means that when flows in some local rivers drop below certain levels, we would supplement flows using groundwater. This is known as river augmentation.

We are committed to reducing the environmental impact of abstracting water at environmentally sensitive sites during low flow periods (i.e. droughts). We have 19 sites under a scheme which looks at these potentially vulnerable sources, which is known at the Abstraction Incentive Mechanism (AIM).

3.2 Drought trigger 1

3.2.1 What it looks like

This trigger would be characterised by some reaches in river catchments starting to be affected by lack of rainfall and low groundwater conditions. Flows in some chalk streams in our area would be lower than normal, and in some upper reaches would be dry. Low flows in some reaches could start to affect ecological communities such as fish and macroinvertebrates, and aquatic plants could also be impacted.

3.2.2 Drought management group

If we reach drought trigger 1 our Drought Management Group will form. This group will be responsible for planning and managing all the actions which need to be carried out as we go through a drought, to co-ordinate actions to reduce demand, maintain supply, and protect the environment.

3.2.3 Regional drought management

We recognise that as an industry we need to work collaboratively to co-ordinate and align messaging, share knowledge, and promote more integrated use of our water resources, especially during events such as droughts.

During periods of water shortage due to drought we actively participate in the National Drought Group (NDG) which is led by the Environment Agency. The group provides high level strategic direction for drought management in England. The NDG is responsible for producing a cross-sector view of drought issues at a national level and they co-ordinate the delivery of drought management activities, communications, and risk mitigation.

We also work closely with companies in our region as part of the Water Resources South East (WRSE) group to share best practice, and align our communications wherever that makes most sense. The WRSE dry weather monitoring group holds regular calls during drought events to ensure engagement and support between water companies in the region, as well as ensuring consistency in communications and sharing of engagement material. By using joined-up approaches to messaging and actions, this will help to reduce confusion for our customers and ensure clarity of communications. We will also continue to work together to reduce pressure on supplies and the environment during normal operations and during drought events.

Drought management actions

3.2.4 Actions to reduce demand

Demand reduction is a key element of both our business as usual activity and our drought plan. We will use communications as a key tool in helping our customers understand the importance of using less water, and our messaging during a drought has the goal of helping customers understand the increasing risk due to drought, and what they can do to help.

We will increase our water efficiency communications during droughts, to ask our customers to use less water, and provide information about how they can do this. We will also explain what we are doing to manage the developing drought situation.

3.2.5 Actions to protect the environment

As we reach drought trigger 1 and a drought continues to develop, we would continue to carry out the environmental mitigation actions as set out under the Environmental Stress Trigger whilst our Drought Management Group monitors for any impact carefully and consistently and directs our communications team's activities to the areas where they can be of most benefit.

3.2.6 Actions to maintain supply

As we reach drought trigger 1 we will be carrying out a number of important operational actions to ensure that the drought does not impact our ability to maintain supplies to our customers. We would assess the performance of our sources, and where sources appear to be underperforming due to drought, we will put measures in place to mitigate those issues. In some cases where investment schemes have been planned as part of our Water Resource Management Plan (WRMP) process, we will see whether any can be fast-tracked to improve resilience to the developing drought. We would also review opportunities for additional transfers of water. We have two types of transfer options when moving water from its source to our customers' taps:

- Inside our supply area - we have an underground network of pipes which enables us to move water from one area to another. We would also give consideration to bringing forward planned infrastructure projects to increase connectivity in places where it is very critical to move water from one area to another
- Outside our supply area – we can ask neighbouring water companies and private companies with water supply licences to provide us with extra water, where this is available

Drought management actions

3.3 Drought trigger 2

3.3.1 What it looks like

Reaching drought trigger 2 will mean a worsening drought situation and increasing risk, both in terms of environmental impacts and challenges to water supply. The impacts would be felt in the environment with flows in chalk streams noticeably declining, and upper reaches remaining dry. Actions in this trigger zone are intended to reduce impacts of drought on the environment where possible, as well as engaging with our customers around the developing drought situation. We are likely to need to implement temporary use ban (TUB) restrictions, although this will depend on the time of year.

3.3.2 Actions to reduce demand

During this stage we would use communications and media campaigns to explain to our customers what we are doing to manage the worsening drought situation. We would also ask our customers to do their bit by reducing their water use, which is an important part of drought management. It is likely that we will also need to impose temporary use bans (TUBS) if this trigger is reached in the spring or summer months.

The decision to implement a TUB will not be taken lightly, and will depend on a number of key factors, including our water resource position and the time of year, and we would also work with neighbouring companies to time how we apply restrictions consistently if the drought affects a wider area.

Restrictions on household customers – temporary use bans

Temporary Use Bans (TUBs) were previously known as hosepipe bans. They can restrict the use of water for certain activities, but we only introduce these when absolutely necessary. They can prohibit:

- Watering a `garden' using a hosepipe (the term `garden' covers things like parks, verges, sports pitches and allotments)
- Cleaning a private motor-vehicle using a hosepipe
- Watering plants on domestic or other non-commercial premises using a hosepipe
- Cleaning a private leisure boat using a hosepipe
- Filling or maintaining a domestic swimming or paddling pool
- Drawing water, using a hosepipe, for domestic recreational use
- Filling or maintaining a domestic pond using a hosepipe
- Filling or maintaining an ornamental fountain
- Cleaning walls, or windows, of domestic premises using a hosepipe
- Cleaning paths or patios using a hosepipe
- Cleaning other artificial outdoor surfaces using a hosepipe

Some customers or activities are automatically exempt from Temporary Use Bans – due to disability, safety concerns and commercial considerations – while other customers can also ask to be exempted. We also allow some discretionary exceptions, and we have worked with other companies in the South East to ensure our exceptions are consistent across the region. These have been chosen with the aim of balancing the need for water saving, whilst minimising impacts on customers and businesses.

Full details of the current exceptions we are proposing can be found in Section 8 of our Drought Plan.

Leakage activity

In addition to the actions outlined above, we would also do more to reduce leakage on our network; carry out work to make our networks as efficient as possible; and closely monitor the environment to assess the impact our actions are having on the aquatic environment.

We are already committed to ambitious leakage targets. However, in the event of a drought we would go even further. We would aim to manage leakage more strategically by ramping up work in areas which are considered more vulnerable to the effects of drought.

Drought management actions

3.3.3 Actions to maintain supply

Minimising outage
We would make sure as many of our water treatment works are online and running as efficiently as possible. This means reducing or delaying some maintenance or building works that take them offline. It also means making sure we are abstracting and treating the maximum amount of water from rivers and aquifers that we are allowed to.

Drought permit preparation
When we are in drought trigger 2 and our water resource forecasts indicate that we are likely to cross into drought trigger 3, we will start to prepare our drought permit applications, so they are ready to submit to the Environment Agency for approval.

3.4 Drought trigger 3

3.4.1 What it looks like

Reaching drought trigger 3 means we are in a serious drought situation. River flows are likely to be very low, with many reaches completely dry. This would have serious implications for ecological populations and recovery from this could take some time. Actions in this trigger zone are intended to reduce risks to supply caused by the drought.

3.4.2 Actions to reduce demand

Drought communications in level 3 are regular and firm, providing very clear information to customers on the seriousness of the situation. We actively and extensively engage with our customers and stakeholders to ensure they are aware of the need to reduce demand for water, and keep them updated regularly. We are likely to need to implement Drought Orders for non-essential use bans in addition to the temporary use ban restrictions, although this will depend on the time of year and any associated potential savings.

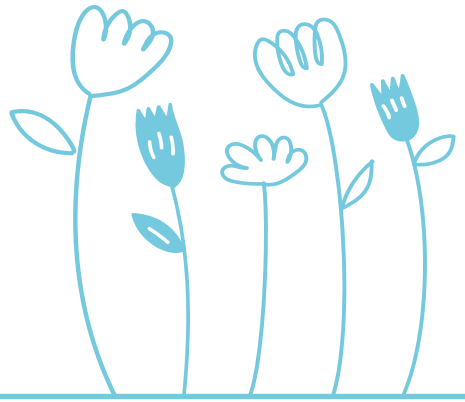
Restrictions on non-household customers – Drought Orders
In addition to Temporary Use Bans, we can apply for a Drought Order from the Secretary of State which would temporarily reduce non-essential use of water for some businesses as well as household customers. These restrictions would include:

- Watering outdoor plants on commercial premises
- Filling or maintaining a non-domestic swimming or paddling pool
- Filling or maintaining a pond
- Cleaning non-domestic premises
- Cleaning a window of a non-domestic building
- Operating a mechanical vehicle-washer
- Cleaning any vehicle, boat, aircraft or railway rolling stock
- Cleaning industrial plant
- Suppressing dust
- Operating cisterns in any building that is unoccupied or closed

Similar to TUBs, some customers or activities are automatically exempt from non-essential water use restrictions. Full details of the current exemptions can be found in the appendices of our Drought Management Plan. We also allow some discretionary exceptions, and we have worked with other companies in the South East to ensure our exceptions are consistent. These have been selected with the aim of balancing the need for water saving, whilst minimising impacts on customers and businesses

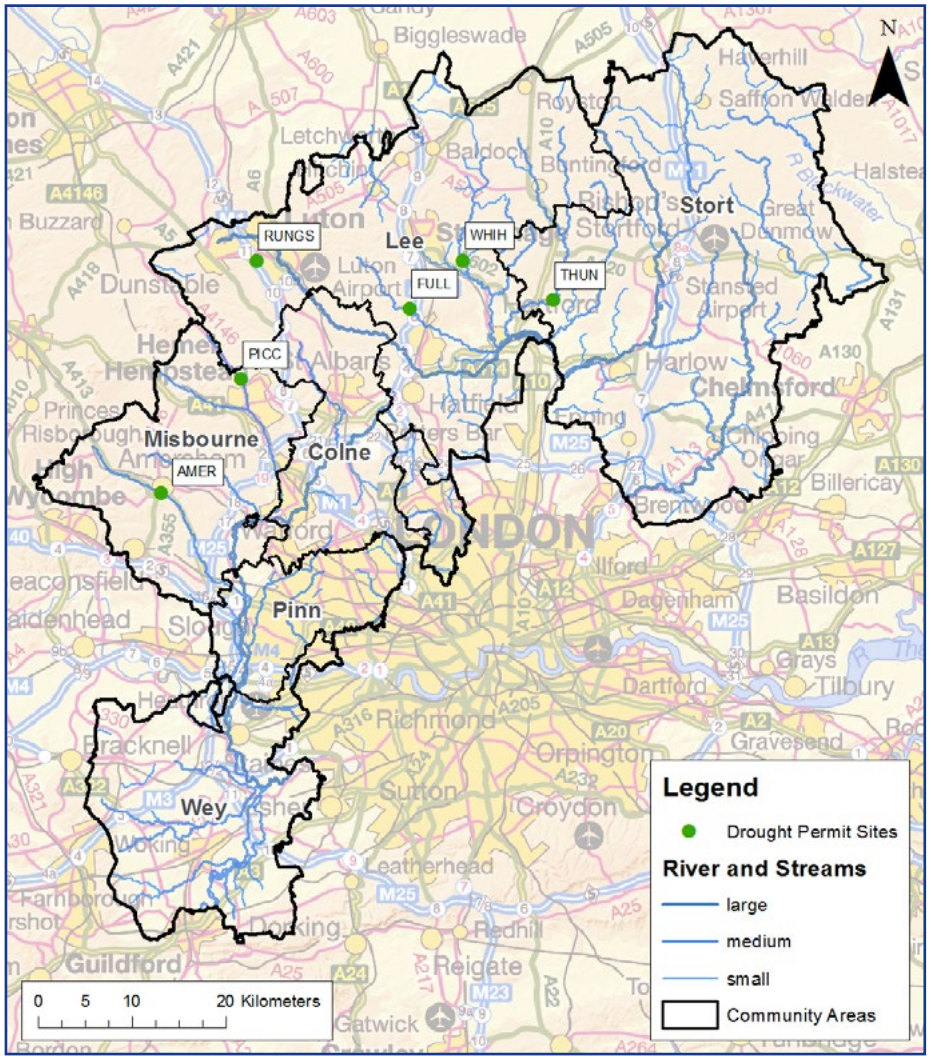
3.4.3 Actions to maintain supply

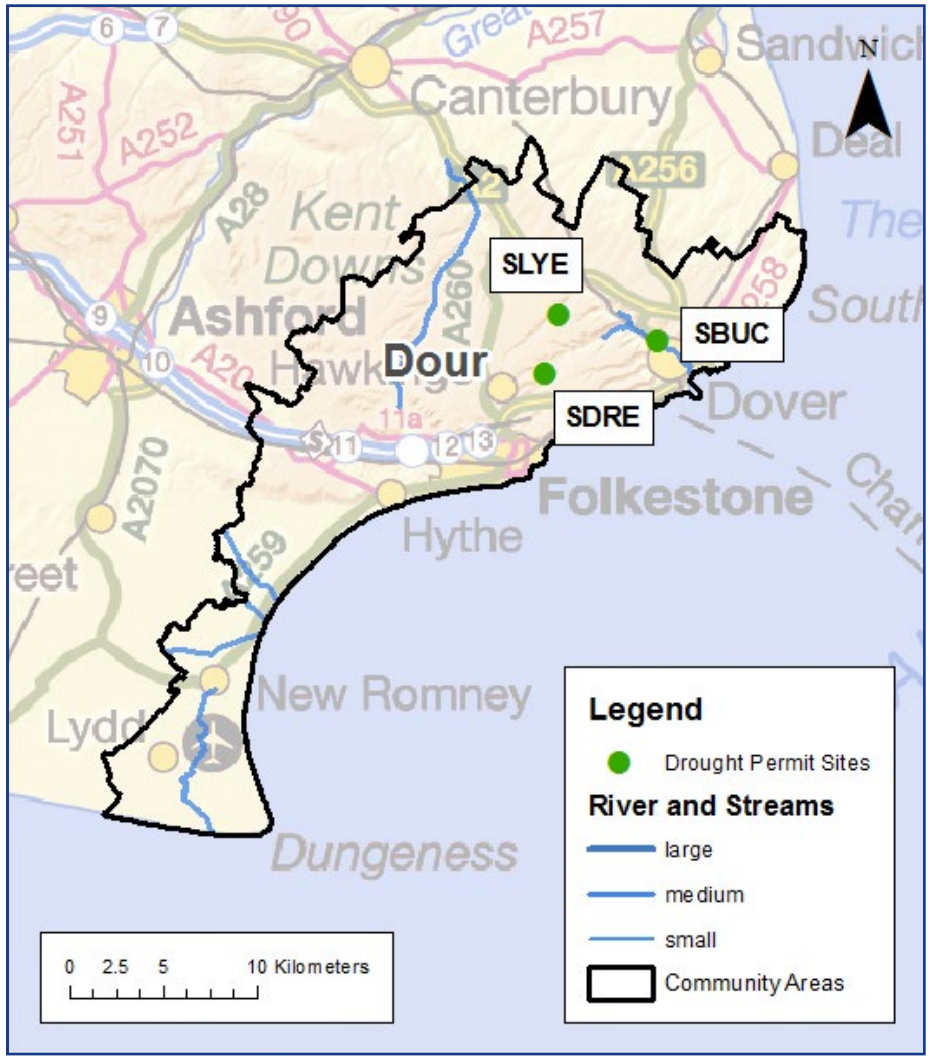
We can apply to the Environment Agency for a drought permit. These would allow us to take, temporarily, more water from certain sources than we are normally allowed to. We have identified seven water sources in our Central region and three water sources in our Southeast region which have the potential to be used as drought permit sources. All of these sources are groundwater sources where the water is abstracted from boreholes.



Drought management actions

The following maps show the locations of our drought permit sources.





Drought management actions

3.5 Drought trigger 4

3.5.1 What it looks like

The groundwater levels associated with drought trigger 4 have not been reached in our operational history. It would therefore represent an extreme and unprecedented drought event for us, which would potentially require mobilisation of our Emergency Plan procedures. There will be significant impacts for local rivers which are dependent on groundwater, with predominantly dry reaches in many catchments. This would have serious implications for ecology, in particular for fish and other aquatic species.

3.5.2 Reducing demand and maintaining supply

During this severe drought period we will carry out intensive media campaigns to ensure our customers are fully aware of the seriousness of the situation, and the need for everyone to save water. We will also be communicating about our own actions to ensure we can maintain supply to our customers. The actions to manage drought risks would continue to be carried out by our Drought Management Group and for continuity, expanded to include our Emergency Planning team as we transition from operating under the Drought Plan to the now mobilised Emergency Plan.

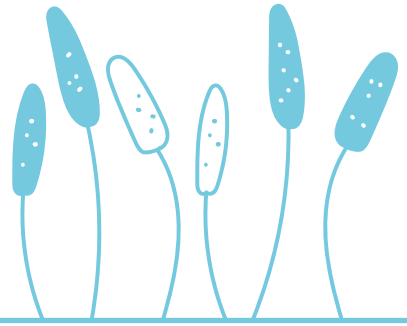
Pressure reduction

One option available to us in severe drought situations is to reduce the amount of water that we need to move around our network, through changes in network pressure. This is a potential option to reduce demand during a severe drought, and we have the understanding and capability to increase water savings from pressure control schemes, however we are aware that these can increase the risk of compromising our service standards.

We would therefore only use this as a last resort in response to localised issues during severe events. Risk assessments would be undertaken prior to this to assess how changes in pressure that would affect our water supplies.

Emergency Drought Orders – Extremely unlikely, but necessary to consider for extreme situations

Emergency Drought Orders have not been needed in the UK by any water company since 1976. If we had the same type of drought now as in 1976, it is unlikely we would need one due to the significant investment made in water supply systems. However, our Drought Management Plan requires us to include the potential use of drought orders in the unlikely event that such a serious situation occurs. This could include taking emergency action to restrict water supplies in certain areas at certain times of the day – these actions would be covered by our Emergency Plan.



Affinity Water

4 After drought ends

A drought ends once we have experienced enough rainfall to increase groundwater levels enough so that there are no longer risks to supply or to the environment.

This usually consists of significant rainfall over the winter period, and it may require a number of months of sufficient rainfall before a drought is over.

Once this has happened and we know a drought has come to an end, there are a number of actions we need to take.

- After a drought we will notify our stakeholders and customers that there is no longer a risk to water supplies from drought, and we would lift any water use restrictions if these are still in place.
- We will continue with our enhanced environmental monitoring, to measure and assess how the environment recovers from drought.
- We will carry out a full review of the drought event and reflect on what went well and what didn't go well.
- As a result of this review we will produce a lessons learned report, to identify improvements to incorporate into our drought planning and management process.

Affinity Water

5 Communicating and engaging with our customers

5.1 Agile communications

We will use media and publicity campaigns to inform customers and communities about the potential impact on their water supplies, what they can do to reduce their water use, and what we are doing to ensure there is enough water.

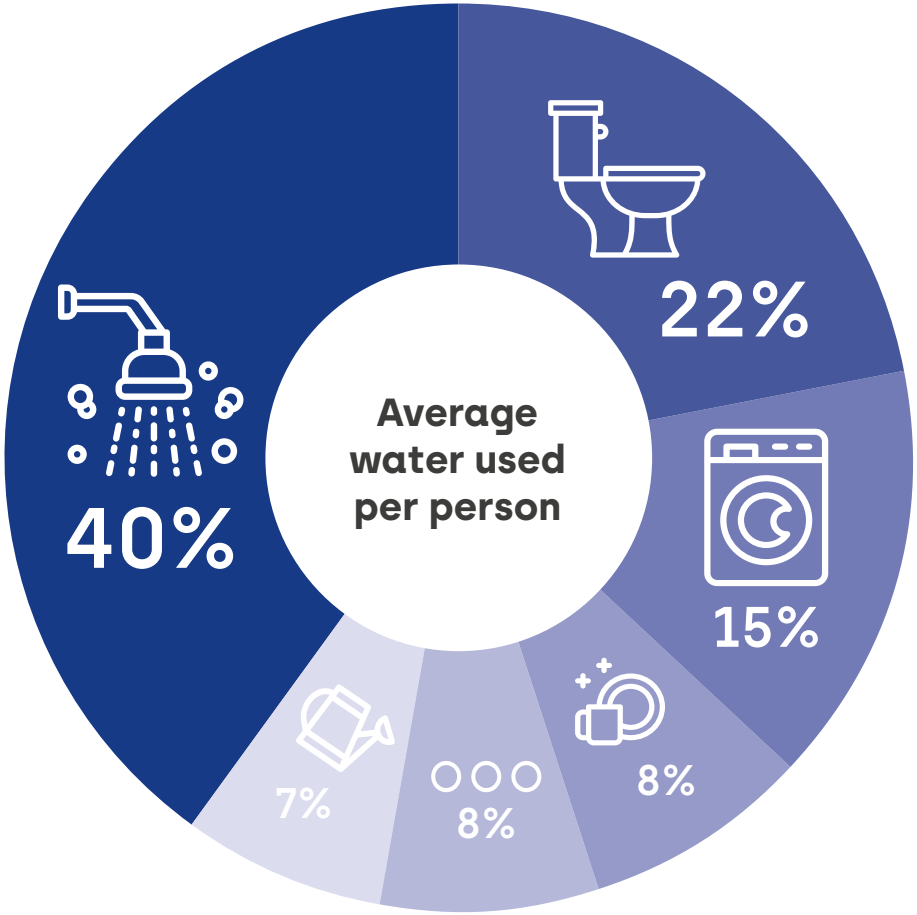
We will use innovative communications channels during droughts because we recognise the greater potential they have to support customers to reduce their water use before implementation of temporary use bans.

Opportunities to reduce household water use for example from showering and washing may be lost in messages around temporary use bans which focus minds on hosepipe use. We will address this through our wider drought communications campaigns. See our main drought plan document for further information about how we approach communications and engagement with our customers.

5.2 Monitoring the benefits of our communications

When we communicate with our customers, it's important to be able to measure the effectiveness of our communications, so we can learn and adapt to what works and what doesn't work.

We have a number of ways of doing this. One is to monitor demand for water, and we have built a model which links communications and demand levels using artificial intelligence, so we can establish whether specific messages are helping to reduce demand for water. We also track the reach of our messaging, through methods such as website hits, social media reach, and direct responses.



6 Conclusions

This Drought Plan marks a step change in our approach from earlier plans and signals a greater focus on our environmental responsibilities as a key custodian of the local environment in which we serve.

It is primarily an operational plan in remit, but it also articulates the vital importance of early communication to mitigate the indicators of environmental stress that tell us a drought may be approaching. Droughts are complex and their impacts and risks can be difficult to mitigate – we are committed to working collaboratively with our communities to increase understanding and find solutions that deliver the best outcomes for all.

Affinity Water

Areas of supply

Affinity Water Limited
Tamblin Way
Hatfield
Hertfordshire AL10 9EZ
Tel: 0345 878 0900

affinitywater.co.uk